

## SCIENCE DEFINITION OF THE INNER MAGNETOSPHERE IMAGER MISSION

### *Final Report*

A meeting of the Inner Magnetosphere Imager (IMI) Working Group (WG) was held on October 7-8, 1991 at the Marshall Space Flight Center. Prior to this meeting, the University of Alabama in Huntsville (UAH) worked with MSFC personnel in coordinating plans for the meeting, arranged for airfare discounts for WG participants, and set up logistical arrangements for the meeting. Before the meeting we arranged for a block of rooms for visiting WG members and provided to WG members maps to the meeting site and to other local facilities. We provided refreshments at the meeting and arranged for lunch to be brought to the meeting site on a cash reimbursement basis for all interested participants. We also made arrangements for a group dinner at the end of the first day, on a cash basis. During the meeting we provided personnel to take care of reproduction of notes and view graphs, assist with travel arrangement changes, provide such other information and assistance as was requested. The Principal Investigator (PI) participated in WG meeting sessions. Following the meeting, we provided information and forms to visiting non-government employees to assist them in documenting their actual travel expenses, for which UAH reimbursed them.

In addition to the activities above, associated with the meeting itself, the PI reviewed the interim version of the full IMI Science Study report and provided editorial comments to the WG study scientist. The final draft of this report is presently being reworked by WG members and will probably not be ready for further action prior to the next meeting.

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**STATEMENT OF WORK**  
**for**  
**Inner Magnetosphere Imager**  
**Working Group**

The Contractor shall provide technical and logistical support for a meeting of the Inner Magnetosphere Imager (IMI) Working Group (WG) to be held on October 7-8, 1991. This meeting shall build on the accomplishments of previous meetings and shall furnish further guidance and definition to the NASA/MSFC Program Development (PD) and Space Science Laboratory (SSL) team which is providing technical support in terms of science requirements, spacecraft design and resource management. More specifically, at this meeting the WG shall review the status of the full IMI study report from which the executive summary presented at the Wood's Hole review meeting in late July was extracted. Scientific rationale supporting the recommendations made in the executive summary, in terms of science objectives, types of instrumentation and technical capabilities, and time frames shall be laid out in considerable detail in the full report. Results of the Wood's Hole meeting and Space Physics Division budget decisions, as they impact the future of an IMI mission, shall also be assessed.

In addition, a number of technical matters shall be reviewed. MSFC PD will brief the team on its preliminary evaluation of a ground data system, including available data compression techniques and the effects these could have on downlinked data rates. PD will also report on benefits which could accrue from NASA Headquarters, Code R developments of new technology in orbital maneuvering jets and the alterations of satellite orbits that they could support. The WG, in turn, shall provide PD guidance, as requested, on refinements of technical and resource requirements imposed by anticipated payload instrumentation.

The Contractor shall work with the Working Group in defining and

documenting the science requirements. These science requirements will be used by the MSFC/PD task team to initiate a Phase A in-house study of the IMI mission.

The Contractor shall also provide logistical support to facilitate the activities of the working group. The Contractor shall prepare and distribute information packets to meeting participants, providing administrative guidance to participants and convenors in assembling and distributing copies of written materials, providing guidance to participants in making or changing travel arrangements, and other similar services as requested for the duration of the meeting. Following the meeting, non-government participants shall be reimbursed their actual travel expenses subject to their submission of requisite expense accounting and receipts. The Contractor shall edit the full IMI study report. The Contractor shall complete the final assembly, editing, and distribution of the report for Government approval.

Research Administration  
REPORT FORM

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